

Sixth Wave hits the market with MIP coatings and sensors for the biodetection of viruses and bacteria

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[Sixth Wave Innovations Inc.](#) (CSE: SIXW | OTCQB: SIXWF) (“Sixth Wave”) is a nanotechnology company focused on the ‘detection and extraction’ of target substances at the molecular level using specialized molecularly imprinted polymers (MIPs).

Sixth Wave’s nanotechnology uses MIPs to detect and extract almost any target molecule



Source: [Sixth Wave Innovation website – About MIPs](#)

There is a huge list of potential industries that can benefit from Sixth Wave’s MIP technology; however key areas of interest for now for Sixth Wave are health (rapid COVID-19 detection), cannabis production (cannabinoid purification), security, gold and lithium extraction.

AMIP COVID-19 test with improved sensitivity

[Announced](#) on August 19, 2021, Sixth Wave has improved the sensitivity and capability of its leading-edge nanotechnology AMIP to detect the presence of the COVID-19 virus at levels below 1,000,000 virus particles/mL. Dr. Garrett Kraft, Vice President of Innovation at Sixth Wave, [stated](#): “Hitting this level of detection is a huge achievement for us. With this technical milestone, we are fulfilling the sensitivity

requirements for many of our intended end-use applications for high throughput screening.”

Note: Accelerated Molecular Imprinted Polymers (AMIPs) are rapid acting MIPs.

The clinical significance of a more sensitive test is the potential to detect COVID-19 earlier and in patients that are asymptomatic, when lower levels of the virus may be present. According to Grandview Research, the global COVID-19 diagnostics market size was estimated at [USD 84.4 billion](#).

Sixth Wave is quickly moving through a program of development and scale-up milestones toward a wide range of AMIPs virus rapid detection devices.

MIP coatings and sensors for biodetection of viruses and bacteria

Sixth Wave recently [announced](#) that they have filed for a patent for their MIP coatings and sensors for biodetection. The patent focuses on the synthesis and processing of MIPs containing detection elements for viruses and bacteria. Sixth Wave [state](#): “The patent will be solely in the name of Sixth Wave, who will have exclusive ownership of the IP, subject to a reasonably agreed-upon license fee. The work with York University is an expansion of Sixth Wave’s efforts with the AMIP product line and focuses on detecting both viral and bacterial-based pathogens in fluid samples.”

This could potentially be a huge business one day for Sixth Wave given the global need for rapid detection of viruses and bacteria.

More about Sixth Wave

Sixth Wave has collaborated for research and testing with some

of the largest entities in the chemical, resources, education, security, defense and medical sectors. Sixth Wave's systems are all patented or patent pending in 40+ countries worldwide.

Sixth Wave's key product names are IXOS® (a line of extraction polymers for the gold mining industry), Affinity™ (for the cannabis industry), and AMIPs (for sensitive and rapid COVID-19 testing). Sixth Wave recently [announced](#) an Affinity system has been shipped from the contract manufacturer and is on the way to Sixth Wave and then onto the first customer, Green Envy Extracts.

Other prospective products in development include a wide range of AMIPs Virus/Bacteria rapid detection devices, Personal Protective Equipment applications such as SIXW's Smart Mask™ (see news dated [May 15, 2020](#)), and smart clothing, airborne sensors, breathalyzers, ELISA-based technologies, cartridge/lateral flow designs, and others.

Closing remarks

Sixth Wave is at an exciting stage as the Company rolls out the commercialization of its Affinity™ cannabinoid purification system, IXOS® gold mining extraction technology, and soon plans the rollout of their AMIPs virus rapid detection devices and other products.

The idea of one day being able to potentially use a Sixth Wave MIP sensor to rapidly detect viruses and bacteria pathogens is quite amazing, and if it happens, would be a significant advancement for medical diagnosis.

Trading on a market cap of just C\$30 million, stay tuned for more developments from this fast-moving company.